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The Relationship of the Junior High School Curriculum to the Primary Functions of the Junior High School

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History of the Junior High School

In American educational progress, there have been few more significant and striking movements than that represented by the junior high school. The movement for the reorganization of the American public school system began during the latter part of the nineteenth century, after the educational ladder was essentially complete in form. However, the junior high school movement is the result of an older educational movement. It may be traced far back into the past to Comenius and Rousseau, the former was a leader in the seventeenth century, the latter in the eighteenth century.

Rousseau particularly espoused an educatinal program which would care for the special needs of the adolescent, indeed so advanced was his educational theory, that its influence is manifested upon our modern school system. In his "Emile", Rousseau enunciated certain principles which he maintained were essential in the education of the adolescent. This brief summary of the outline for "Emile's" education would indicate that our educational system had retrogressed previous to the adoption of the junior high school. He said in part that this is the one period in life in which the strength of the individual is greater than his needs. As intellectual training has for its general results-

the multiplication of wants without any corresponding development of power adequate to meet those needs, this is the one period in life in which the greatest stress can be laid upon the acquistion of knowledge. But, after all, there are comparatively few thigs tobe known that are of value. The test of all is its practical value. "Let us then regect from our primary studies those branches of knowledge for which man has not a natural taste, and us limit ourselves to those which instinct leads us to pursue", is Rousseau's statement which is akin to our recognition of "individual differences".

Among other things, Emile had experience in a trade, "less for the sake of knowing the trade than for overcoming the prejudices which despise it." In his long discussions of the importance of the manual and industrial activities in education, Rousseau emphasizes many of the social advantages. At the end of this period "Emile is industrious, temperate, patient, firm, and full of courage. He has little knowledge, but what he has is really his own; he knows nothing by halves." Thus to Rousseau must be credit for presaging an approach to what constitutes a real education for a youth of our present day junior high school age.

Before proceeding to a discussion of the reorganization of the American school system, it would be well toexamine certain aspects of the organization of one or two European school systems. The most important features

of the French system which we will first consider are these: 1) the essentially dual sharacter of these systems; 2) the relatively long time which they allot to secondary education; 3) the tendency on their part to provide for the early adolescent period. The French boy who belongs to the lower or middle class enters the ecole primaire elementaire at the age of about six. At the age of twelve, he may take the examination for the elementary certificate. After he has received this certificate several alternatives present themselves if he wishes to continue his education. He may transfer to the first cycle of the secondary school of the upper branch of the school system: he may enter a vocational or technichal school; or he may, as he does most commonly, if he continues in school, enter the higher primary school for a two or three year course. If he enters this school he will pursue a prescribed course during the first year; thereupon, he may choose a general, an industrial, a commercial or an agricultural curriculum. If he chooses the general curriculum , he may upon its completion, transfer to the science-modern language division of the second cycle of a lycee or college. Upon the completion of any other curricula, he may under certain conditions continue his education in higher vocational and technical schools.

The English, Scotch and Dabish schools, likewise, make provisions for a middle school which cares for the needs of adolescents. Secondary schools extend therefore over a period of at least six years. This is particularly true of the higher branches of the shool systems-the secondary schools which lead directly to the universities. The regular English second-

ary schools which are associated with the upper branches of the school system, represent one which is essentially continuous, extending as it does from the age of twelve to about fifteen. The curriculum is for the most part general, consisting of such subjects as English, mathematics, geography, history, drawing and manual arts. The central schools mark a more recent departure from the older system, but are as yet limited chiefly to the larger cities. They likewise receive pupils from the fifth grade on the basis of a special examination, and keep them until the age of fifteen or sixteen. Unlike the elementary school they have a more elastic curriculum, on which may be readily adapted to local needs and provide for individual differences. The aim of these schools is general and pre-vocational, rather than specifically vocational. Aside from the industrial and commercial content, the curricula includes such subjects as English, modern languages, experimental science, drawing, music and physical training. Where more than one curriculum is offered, there is usually little differentiation before the last two years.

A comparison of the plan employed in this country and that is Europe give clear indication that the time devoted to secondary education in this country is dicidedly too short. Once the American educational was completed, a normal child entering school at six years of age might, under favorable conditions, be expected to complete the elementary school at fourteen, graduate from high school at eighteen

and receive his baccalaureate degree at the age of twenty two. He is then twenty five or twenty six years of age when his graduate work is completed. In contrast with this normal European child who is destined to complete a higher and professional education will do so between his twenty second or twenty fourth year. His educational program is completed about two years earlier on the average, than the American student who follows a standard program.

The fact that the American educational program requires the student to continue his general education two years beyond the European does not necessarily mean that American educational standards are higher. Itmeans, rather that the training which the fur year American high schools affords is not equivalent to that afforded by the European secondary schools. It is generally conceded that the graduates of the better European secondary schools have received a type of training which is equivalent to that represented by the completion of the first two years of the American college of letters and sciences. The experience of our Rhodes scholars bears witness to thii fact. It was originally intended that these scholarships should be open to American high school graduates, as they are to graduates of English secondary schools. However, experience soon demonstrated the impracticability of this, and the requirements were accordingly advanced for American students.

From such observation it is apparent that the European secondary system of education is superior to the old American plan with its unbalanced eight-four plan. The European student gains two years before he enters upon his graduate study. This gain is made possible largely by the fact that Europe has arrived at a relatively sound distinction between elementary and secondary education. Their educational system is divided biologically:: that is, the pre-adolescent period is devoted to elementary education and secondary educatinn starts at the age of twelve, continuing to the age of eighteen. During the former period the individual masters the minimum essentials of the fudamentals so far as his maturity permits; with the approach of the adolescent period he enters upon the pursuit of his secondary studies, and as he proceeds with these he carries the fudamentals, more or less indirectly to a greater state of perfection.

In contrast with htis, the American program calls for the completion of the fundamentals before the secondary studies are begun. Accordingly, approximately two years of the adolescent period are devoted tothe so-called fudamentals. As a result, the individual wates much of his time in the attempt to master subject which he would master anyway, mor or less indirectly, along with his secondary studies if he were to begin these at the age of twelve. The last two years of the American elementary school are therefore essentially lost since it seems quite out of the question to complete the secondary program within the four years alloted to it. Such a consideration and comparison of what is bing done in Europe and American can do nothing but cnvince us that America, out-

standing for her progressivism has been stagnant is this matter of educational reform.

The first embryo junior high school of America was the Boston English Classical School. It was established upon basic principles which are in accord with the junior high school of today. Boston English provided a three year course for the further education of boys who had completed a six year elementary course and were desirous of entering business about the age of sixteen. The age of admission to the school was fixed at twelve years. Thus, this school established in 1821 successfully carried out its objectives with a year course given during the adolescent period without demanding and elementary training of eight years as a pre-quisitte.

Conneticut was not far behind as the junior high school began in Middletown in the year 1849 andwas an integral part of the high school from that timeon. By 1851 a three year course was given in this department of the high school and a similiar number of years devoted to advanced education in the sinior division of the school. The schools of Middletown were completely graded in 1865, a five year course was given in the elementary grades, followed by three years in the junior department and by four years in the senior division. While the curricula of these schools was undoubtedly very limited, still the organization of the was a trigute to the foresight and educational wisdom of the town's schools administrators.

The movement for a general reorganization did not gain impetus until some years later. President Charles W. Eliot of Harvard was the outstanding leadrer in pleading for a complete reorganization in the public school system. He was the real pioneer in this movement and it was he who awakened American public school men that some thing was radically wrong with the existing public school arrangement. As early as 1873, he urged a reconstruction of cur plan of secondary education. Not only did he voice his opinion but he carried them out by making several radical changes in the admissio requirements to Harvard. The changes allowed the student to complete his requirements for a bachelor's degree at an earlier age.

The next step was far reaching in scope and importance, it marked the beginning of a rapid swing forward. The occasion of the President's address to the Department of Superintendence marked thestart of an new era in American secondary school education. While his chief concern naturally was the college student, several recommendations were made which wereappicable and pertinent to every pupil who cam e under the g uidance of the American school system. By analysis and comparison with the products of the European sbhool system and the American School graduate, theinferiority of the latter was due to the waste of time and energy in the elementary school. He urged a shortening of the time devoted tothis first period of the American' child's education and strongly recommedned the purging of the elementary program of all irrelevant matter .

The results of Dr. Eliot's address were obsered in the formation of the Committee f Ten under the direction of

the Natinal Education Association. This committee with Pres. Eliot as chairman, carried on intensive research and investigation, and aided by school and college teachers, definite recommendations were made concerning the curriculum of the secondary school. The following recommendations were made: an enriched program of studies for the secondary schools; thereduction of the elementary school period from eight years to six, and the redognitin of individual difference, interests and ambitins among pupils; the assignment of adequate, though not uniform class time allotments for the various subjects of study; and the adoption of departemtal teaching below the ninth grade.

The next committee was one whose purpose it was to investigate college entrance requirements. While very little of a real constuctive nature was contributed to the problem of secondary education, an extension of time for the secondary school period was strongly urged.

Meanwile, the American educators were advocating a complete reform. Many committees were at work and the reports emanating frm their labors recommended the elimination of courses long since passed into desuetude and general adoption of the six-six plan of secondary education. None had as yet suggested a separate organization which we not call the junior high school.

Several essayed the six-six plan, but the only notable change was the adoption of two distinct curricular-one preparatory for college, the other preparatory to life. While many valuable contir butions were made during the secnd decade of the period, most of the time and energy was devoted to educating educators for departures frm established practices". It was not until 1910, the secnnd decade of the movement, when any change of impotance occured. The following figures give an indication of the trend 1;

Number of Cities	Basis of Organization
489	8-4
48	7-4
86	9-4
7	8-3
4	8-5
3	7-5
8	6-4
24	Significant departures

While these changes are broad, they give indication to trend and they also show a gradual elimination of the great obstacle to later reorganization; the nin-three system. Likewise, in progressives cities such as Baltimore and Rochester, the school authorities affected an economy of time by providing special classes for bright children after the completion of the sixth year. In this manner two years of elementary training and the first year of high school was completed in two years. This was accomplished by the introduction of a curriculum which includ ed elementary and high school subjects.

The National Education Association was meanwhile, carrying on their investigations, st ill reacting from the impetus of Dr. Eliot's remarks of decades ago. The committe of Nine

1 Wm. A. Smith, The Junior High School P.93.

organized in 1910 recommended that secondary schools should provide an opportunity for testing the pupil's capacity; early selection of vocation by the student; mechanical and practical arts course for all boys and home economics course for all girls. Shortly after this report was made, the Commissin on the Roorganization of Secondary Education was assembled and numberous reports were made; its outstanding contributin wasthe bulletin, "The Cardinal Principles of Education" in which division of the secondary school p riod advocated. The bulletin also contains the "Senen Cardinal Principles" which should form a basis for the curriculum of the junior high school.

The movement, itself, was growing with amazing rapidity, Berkely and Columbus established recognized junior high schools in 1910. These cities together with Los Angles, which organized such a school in 1911, are generally cited as pioneers in the movement. Other cities followed in rapid succession. In most cases, however, it is hazardous to assign exact dates, since the new institutions were introduced gradually and it is difficult to tell when they began to meet the basic requirements of a junior high school. The same situation is true tpday, many intermediate schools are junior high schools in name only.

During the year 1913-1914 one hundred and sixty seven cities with a population of 2,500 or over reported junior high schools to theCommissioner of Educatin in

accordance with the following difinition:

A junior high school is defined as a organization of grades 7 and 8 or 7 to 9, whether housed with the senior high school or independently, to provide by various means for individual differences, especially by an earlier intruduction of pre-vocational work or of subjects usually taught in the high school. 1

An application of this difinition as a ~~standarded~~ stamdardled however, to the rejection, as junior high schools, of all but 57 of theseinstitutions. In 1920 three hundred and eighty six cities with a population of 2,500 of over reported 575 junior highschools to the Bureau of Education; and two years later 456 cities of this class reported a total of 733 junior high schools.

The growth of the junior high school movement in Massachusettes has been similiar to that ot the country . A survey condiucted by theDepartment of Education showed that there were one hundred and seventy junior high schools in the state. The schools varied widely incurriculum offering, in housing, equipment and administration. Many of them, probably could not be considered junior high schools under the definitions.

It is a self evident fact, says Koos, to say that the final test of an educational institution is the extent to which it realizes the aims of education. While there have been numberless aims offered as the ultimate aims of secondary education, educators at present are unanimous in accepting the main objectives as offered by the Commision on the Reorganization of Secondary Education of the National Education Association 1/ These seven main objectives:: 1) health, 2) command of the fundamental processes, 3) worthy home menbership, 4) vocation, 5) citizenship, 6) worthy use of leisure time, and 7) ethical character, all of whichhave been explained on numerous occasions and will require no further enlargement here.

The junior high school must assist in the fulfillmentn of these general aims of secondary education and indeed the possibility of realizing these aims is dependent to a great extent upon the junior high school. Each divisin of our educational ladder has its peculiar functions, the functions of the elementary school are as folows:: "It should provide the general vasis for health, equally disirable for all; to develpp that practical efficiency in adtivities shared by all in daily work and intercourse; to develpp that practical efficiency in activities shared by all in daily work and intercourse; to develop those ideals and habits of civic and

1 Cardinal Principles of Secondary Education, Bulletin No. 35

other forms of group activity of equal value to all; and to cultivate interests and means of recreation common to all. "1 The elementary school is the means by which the child is intruduced to the culture of the race. It is the place where he gains the fundamental knowledge, skill, habits, and ideals of thought which are essential for all. A knowledge of these functions of the elementary school is essential to those who are to assist in fulfill- the peculiar functions of the junior high school if a unified, accumulative system of education is to be had in A erica. Too often junior high school teachers are totally unfamiliar with what has been doen in the elementary grades so that much valuable time has been lost in exloring and probing the knowledge of the new arrivals in the junior high school. Greater harm has been wrought by those who have not carried on such investigations even in this hap-hazard manner, and as a result the curriculum has been built o the suppostion that in some miraculour manner pupils of twelve or thirteen will be able to carry on studies and work under a plan of organization which had been heretofore, too difficult for pupils two or three years their senior. Departmental teaching and kindred evils in the first year of junior high school will bring about

1 Bonser, F. G. Elementary School Curriculum P. 62

acondition most feared by advocates who doubt the feasibility of this plan; namely, the creation of two gaps where there existed only one. Thus the duty of the junior high schoolis not only to do its share in realizing the Seven Cardinal Principles, but also to continue the training startinged in the elementary schools, and further practice in the use of the tools of education.

It will be our purpose to draw up or assemble the primary functions of the junior high school. A definition of the term "function" as applied to the junior high school is not synonoumous with educational aim;; rather it indicates an adjustment which will enable the school better to achieve its ends. 1 Specific functions or purposes have emerged when a defect in the school has appeared. For example, the junior high school should give opportunity for the recognition of individual differences. It is evident that this was not done under the eight-four plan of organization, consequently such is one of the functions of the junior high school.

Observers of the Junior high school movement whose educatioal background has been dominated by the "classics" and others who are prone to believe that any prgressive movement will bring disaster have been disposed to characterized the junior high schol movement as a purposeless actively aa movement not motivated by clearly defined aims and purposes. Nothings could be farther from the truth considering the movement as a whole. In deed, it is very doubtful whether any movement for educational reform has been so completely dominate ed by purpose as has been the movement for the reorganization of the American public school system which has geven rise to the junior high school.

The early advocates of the plan were interested in tbe equal division of our educational ladder and in view of the fact most of the purposes of functions of the secondary junior school were concerned with the six-six plan. These arguments were:: 1) that it would make for economy of time in education 2) that it would provide a more gradual and more natural transition from elementary to secondary education; and 3) that it would result in a more suitable school for the adolescent age.

The first, economy of time, was the peculiar function which motivated President Eliot in his famous address to educators at the meeting of the Department of Superintendence. He and the early advocated of the plan were firmly convinced that the eight-four plan was fundamentally unsound since it allotted toomuch time to elementary education and too little to secondary education. This was made obvious by comparing

the results obtained inour four year high school and those of the longer European secondary schools. The waste waste in the case of our elementary schools they attributed mainly to the fact that the last two years of the elementary school was devoted to subjects which held no particular interest or convery little of value for pupils fo that age. Such studies, they maintained could be mastered more advantageously in the course of the secondary school period. The inability of the high school to meet the standards of the European scholls was attributed to the fact that four years do not consititute a sufficient length of tiie for the mastery of subjects which enter into the secondary school curriculum. This faulty are rangement could be rectified, they maintained, by shortening the elementary period of education to six years and increaseing the secondary period to a similiar number of years.

The second argument advanced by the early advocates ofh the six-six plan was that such a reorganization wuld provide a more natural and gradual transition from elementary to secondary education. The transition in the case of the eight four plan was considered abrupt and unnatural . It compelled the pupil to change from the one teacher type of organization to dep rtmenal teaching. The change in method was also abrupt. Both of these defects, it was decided were

underlying reasons for the great student mortality. The six-six plan would do away with many of these evils, since the pupil would be able to pass gradually from the one teacher to the departmental plan of organization, and would also enable the students to gradually become accustomed to secondary school procedure. This function of the junior high is one of the most important, and it will be treated at greater length at a later point.

The third and final defense of the six-six plan is another argument which will be enlarged in a further discussion of the functions of the junior high schools-, namely, that such a plan provides amore suitable school for the adolescent age. The character of such a school, its subject matter, its methods, and its whole atmosphere would be largely determined by the needs of the adolescent, and would, therefore constitute a more suitable educational environment for seventh and eight grades pupils, who are for the most part early adolescents, than the elementary school, the character of which must conform primarily to the needs of childhood.

The second decade of the twentieth century found educators advocating the prevailing six - three - three - plan. They were convinced that the aims and objectives of the secondary education could be realized to greater advantage if it were divided into two divisions of the same length. Thus, the arguments advanced by these leaders are for the junior high school as a separate organization and as it is known to-day.

The primary functions of the junior high which we will discuss are as follows; 1) gradual transitions, 2) exploration and guidance, 3) to recognize individual differences,4) democrazation of the school system.

The first of the primary functions, to provide gradual transition between primary and secondary education, is placed in that position because of its relative importance in the educational field at the present time. Many educators seem to have lost sight of this all important function in building their junior high school curricular. In realization of this there has been great emphasis placed on this particular function in recent literature. Unless this function is considered as the basic principal of the junior high school, the efficiency of the subordinate functions will be lessened appreciably. The claim of the early opponents of the reorganization, namely, such achange would create two gaps where only one existed, seems to have some foundation.

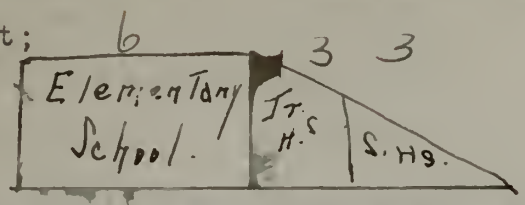
On account of this recent emphasis, it may seem to some to be in the nature of an inovation. However, it has been implicit and even expressed in the claims made in the earliest days of the movement. One of the chief claims against the old organization was that there was poor articulation between elementary and secondary education. Koos says, "The need of transition is manifest in the conception of economy of time, which admits of the earlier introduction of functional aspects of secondary school subjects. It recurs again in vital form in the function of exploration and guidance and, as may be without amplification, in the purpose of recognizing the changing nature during adolescence even though

recognized within several of the functions, however, the idea of transition is deserving of the special emphasis it is now being given, for the reason that it is a serviceable unifying concept by which certain essential elements of a number of functions are knit together."-1

The nature of the child is such that a gradual transition is essential to meet the physiological and mental changes which take place at the age of twelve or thereabouts. Educators are realizing that the junior high school is essentially a transitional school. James MGlass makesthis statement, "The nature of the junior high school administration is gradual transition from elementary to secondary education. This administrative principle is in full correspondence with the gradual transition of early adolescent children from childhood and of pre-adolescent children to the mid-adolescence of the senior high school."-1 It is an unquestionable fact that the old eight-four plan made no effort and could make no recognition of this gradual and physical and mental change. The old plan presupposed a sudden mutation from childhood to late adolescence. Hence the chief indictment was the lack of articulation between the elementary and secondary schools. Distinct and separate aims characterized and controlled the entire units of the school.

-1 James M. Glass,"The Junior High School,"New Republic, Nov. 7,1923.

The relationship of the three schools may be noted in the following chart;



There is a single common integrating curriculum of common branches in the elementary school. There is an enlarged and enriched curriculum in the three years of the junior high schools. Its function is to articulate elementary and secondary courses of study; thereby to help each early adolescent to discover gradually his own peculiar aptitudes by a general survey of differentialted curricular ahead of him; to reveal to him the educational possibilities for the training of his aptitudes; and to give him, again gradually, a vision of the opportunities in which his aptitudes, when discovered and trained, may find their proper and useful employment. This being accomplished the junior high school, the senior high school may furnish training for the development of the aptitudes;, interests and capacities" of pupils which have been opened up and revealed by a gradual process in the intermediate school. This can be done only if the transition is gradual as the functions, exploration and guidance, recognition of individual differences , can work efficaciously only if there is a gradual transition.

One factor under the old eight-four plan which caused educators great concern was the excessive student mortality after the completion of their elementary education. Much of this

elimination was due, no doubt, to a new and strange regime. In consequence, the pupil drops out because he has failed. Hence it is the duty of the junior high school to prevent such elimination if possible, and it is possible if the school is properly organized, both as to administration and curricular. The well organized school will make the work of the seventh, eigth and ninth year a transitional period. Then if a pupil does leave, the junior high school has given him a chance to check up his own judgment and to determine whether his circumstances as well as his tastes are such as to justify hi for going on for three more years in secondary school. If he decides to leave school, he leaves concious of having succeeded rather than failed-causing a different reaction on his character. Such a noteworthy accomplishment may be wrought by the intermediate school only if there is a gradual transition from the elementary to th secondary school. Charles H Judd, a most vigorous and far sighted champion of the junior high school movement expresses himself in no uncertain terms on the problem of articulation and gradual transition; "Sometimes it is said by those who opposethe intermediate school that the break between the sixth and the seventh grade will be widened by this new form of organization. They are saying, also, that the break between the ninth and tenth grade is a menace to the fuller development of the child' education. The answer to these criticisms lies in the fact that the whole motive of this organisation is to create a continuity where heretofore there has been adisjointed and wastefully duplicating system. The seventh grade is to recognize the individual child and his needs, and is to give him such a course as is suited to his adolescent experience. In doing this it will affect a change in

methods of operation of operation just at the point where the child himself is undergoing a change. The child will reach out and meet the change in school organization which is provided for him. To delay this change until two years after the child is prepared for it, as we do in the eight year school, jeopardized the whole relationship of the school and the pupil. To make the change at the time in the child's life when he is ready for it, and when the change will be congenial to his needs and intellectual demands, is to economize his life and energy in the largest sense of the word. To avoid a break by moving parallelto the child own motion, not crossing him obliquely in the path of development. In exactly the same way, if we change the first year of the high school so as to make it fit the child's needs, we will effect economy by removing these obstacles to the natural progress of the pupil which now exists in the first year of high school."1

The function of exploration and guidance is another which did not receive much consideration in the early days of reorganization, nor was it considered as a single broad concept, but rather as separate functions which had no particular correlation. Among those who have advanced and advocated the full assumption of the obligation of guidance is Glass whose opinion may be taken to exemplify the modern attitude on the question. He stated that "the method of the junior high school is guidance, and upon its method m more than upon its organization and objectives will depend its progress and fullest service." He continues in his article on the subject of exploration and guidance, "the junior high school has been variously entitled as the finding, the sorting, the trying-out and testing period of the public school system. It is a probation-

ary period before the vital period and question of educational or vocational choice is finally determined. Exploration of individual differences, the revelation of educational and opportunities adaptable to individual differences, guidance of educational or vocational choice, equalization of opportunities, the adaptation of educational offerings to ascertain individual needs rather than the conforming of all pupils to one educational pattern, and the stimulation of educational or vocational vision which condition all progress in secondary education, all these and other purposes to adapt the educational program to the individual, are the objectives of the junior high school." 1

Many of our junior high school curricula are so arranged that this function is one sided and unbalance, that is, all guidance and very little exploration or orientaltion on the part of the pupils. There is little opportunity given them to explore or try-out their mental likes or dislikes, or individual capacities or interests, but they are injudiciously guided into this curriculum or that by omniscient teachers who must feel that they have received divine inspiration to undertake such a task. Many of these well intentioned adminsistrators and teachers feel that because a pupil has attained a particular rating in an intelligence or prognostic test, nature has determined that he should be a mechanic or a doctor, or an office clerk, and such being the case he is placed in the mechanic arts, or the commercial, or the college curricula. All guidance and no exploration is a greater evil than no guidance whatever, and those communities with junior high school

administered and organized in such a manner would be better off without the reorganization of the secondary schools.

The question arises as to how the junior high school is to meet this requirement of the need of the adolescent. Educational treatises are replete with such expressions as the following in describing the functions of the intermediate school; "There will be an opportunity for pupils to explore several fields to see where they fit"; they will thus "Have a basis for making a selection when the time for specialization comes"; " in such aschool it is possible in various ways to test a child and thereby find out what are his natural interests, his ambitions, and his capacities"; the junior high school makes" provision for training in the practical arts which "may help toward vocational finding". Every authority agrees that the junior high school should make some provision for the young fledglings to try out their untested wings.

The period for early adolescenceis essentially a period of exploration and self discovery. Only in proportion as the junior high school made provision for this could it be regarded as constituting a suitable educational environment for the early adolescent. C.O.Davis in discussing this function said; In formulating a program of studies for this school two guiding educational interests must be kept in mind. First , the period of early adolescence is a period of exploration and self disdovery. Young people at this age are prone to dream dreams and inclined to see visions varied and unstable ideas completely fill the horizon. In consequence the period is preeminently a period for developing the power of appreciation of forms, and not to any considerable

degree a time for attaining a mastery of principles. The early years of adolescence should be years of self-testing and self-discovery, and the junior high school a testing place and testing ground wherein opportunities are provided for "browsing around" and for disclosing permanent aptitudes and interests. Second, once these dorminant talents have been revealed, the perfection of character and attainment can be gained only through a systematic and continuous exercise of them. Hence it follows that guarantees for a continuity of effort must be given if the most desirable ends are to be effected." -1

The new institution must therefore, make ample provision for the progressive discovery and the experimental direction of individual interests, aptitudes and abilities through such agencie as enriched and flexible curricula, general and exploratory cours and educational and occupational orientation and guidance. The nascent social interests of children of this age demand a general survey of the major fields of human endeavor, both academic and occupational, rather than intensive work within relatively isolated departments of these fields. These general surveys are quit indispensable in the exploration of individual interests, aptitudes and abilities. Indeed, without exploratory guidance of this type, genuine educational and occupational orientation is out of the question. The junior high school must make ample provision fo

1. Davis, C.O. The subject matter of Six-Three Plan, University Bulletin, No.9, Vol, 17

exploratory and survey activities within the major fields of human endeavor.

This exploratory function can be carried on through the medium of general courses which give a broad pre-view of the respective fields of studywhich they represent. Course in general mathematics, general language, general shop, home economics, and junior business training will prove advantageuos to the young student endeavoring to discover his individual interests and aptitudes Extra-curricula activities,in which every well organized junior high school abounds, also prove of inestimable value in discovering latent talents. The clubs, the allotments, the broadening and finding opportunities, the general introductory subjects, and the tryout short unit courses are all introductory to the formal electives.

The problem arises in every school man's mind as to just how these general cources can be arranged. Mr. L.H.Bugbee, Superintendent of Schools, West Hartford, Connecticut, proposes the following; "a half unit course in general language to consist of two weeks to introductory study, eight weeks to Latin, six or eight weeks to French and two weeks to word study.

In his introductory two weeks, the teacher develops the history of language, using the very beginnings of picture writing by the caveman, then leads his class gradually through the development of language through theGreek and Latin and into the modern languages. By that time, the pupil has begun to have the language sense.

The pupils then take a trip to Italy and a foundation is laid for the study of Latin. Use of pictures, slides, maps, charts and motion pictures was mentioned. The pupils read the book, "The Last Days of Pompeii" for accurate descriptions of Roman life and customs, and , as interest grows, the teacher introduces the vocabulary and gradually gives a few rules in grammar and some simple composition. In the same way the pupils make the acquaintance of France and its langauge." -1

Such a course as the one utilized at West Hartford is most valuable as a try-out course, in addition it is a decided contributory factor to the general broadening of the student and of material assistance to international mindedness and general social sympathy in the student. But as Cox states "the primary and wholly justifiable reason for its continued presence in the junior high schools curriculum is that there are considerable numbers of children at the beginning of adolescence who find in modern language a truly joyous adventure.

The general science course should consist of carefully organized units which will make the subject applicable to the every day world. Science of a general nature should not be taught solely as an exploratory course but must be justified.

Hugbee,L.H.,"General Language," Benj. H. Sanborn & Co.
from Cox P.W.L. "The Junior High School and Its Curriculum
Page 283.

It must be justified on the basis of usefulness to all the pupils and through them to the whole community of which they will soon be active members. The range of interest between those of youths and adults are striking for the familiarity. Thus as far as possible the course of study in this particular branch should be governed by the adult interests of those in the community, reduced however to the level of the junior high school pupils intelligence. The Commission on the Reorganization of Secondary Education recommends that such a course be given in the seventh and eigth year, five periods a week. The report says in part: "The subject matter of general science should be selected to a large extent from the environment. It will therefore vary greatly in different communities. The science involved in normal human activities presents many real problems which must be met more intelligently than formerly. Science is universal and constant in the life of our citizens, and hence to be useful to all pupils general science must accept the scienceof common things as its legitimate field. The science of common use and that of the class room should be the same. General science should use any phase of any special science which is pertinent in the citizen's interpretation of a worth-while problem.

The particular units of study should be those that truly interest the pupils. Interest not only secures productive attention but is an evidence of attention. To be substantial educationally.

Interest must rest upon a sense of value, an evident worthwhileness in the topics considered."-1
Reorganization of Science in the Secondary Schools, Bulletin #26 page 23.

Two distinct modes of attack may be followed. One is the organized science method, the other is the nature study method. The former needs little explanation. It is the method that has been employed for years in the teaching of special science in high schools and colleges. The value of such a course for junior high schools pupils is negligble. The nature study method deals directly with unorganized material. The material is studied in its natural setting, that is, the labaratory includes not alone a room equipped for that purpose but the out of doors as well as various processes found in the home, the school, the shop, the factory, and the street. It means that the children observe, and question, investigate and interpret, experiment an d undertake definite projects in the solution of their problems. Such a course will not develop any specific skill, but will open up the broad general field for future study.

The same broadening influence should be the aim of the general mathematics course, although such a course has not been adopted with much enthusiasm by school administrators. The general mathematics course should reveal the branches of the higher mathematics in their simpleraspects and at the same time provide a background of experience in determining aptitude for higher math.

General mathematics includes a gradually decreasing amount of arithmetic, and a gradually increasing amount of secondary mathematics. In this manner it preserves articulation with elementary and secondary mathematics. Thus it prevents abruptness of transition with the cources of mathematics in either the elementary school or the senior high school. It provides an opportunity to evaluate aptitude for higher mathematics; it opens the field of mathematics to the adolescent and gives him an opptunity to decide for himself whether or not he has the interest or ability to profit by continued study in this branch of study. By preserving life contacts it offers an actual educational return to those students who will not profit from either its exploratory or its preview values.

The general shop is the last of core-curriculum studies and one still in the formative period. The present arrangement of the courceswith its limited facilities for real exploratory purposes is most unsatisfactory. The relative immaturity of thsoe enrolled in the junior high school and thedanger of committing the pupil to narrow specialization, has caused many to doubt the feasability of such a course. Those junior high schools which offer specialized courses in printing, woodworking, and similiar occupations without first openingtheir eyes to thousands of occupations in which they might engage are defeating the purpose of the school. Printing, for example, cannot be justified as the following report indicates. This quotation was taken from a survey made in Cleveland. "In the junior high school, as in the elementary school the greatest difficulty in the way of trade training for specific occupations lies in the small number of pupils who can beexpected , within

the bounds of reasonable probability, to enter a single trade. Hand and machine composition, the largest of the printing trades will serve as an example. In a junior high school of 1000 pupils, boys and girls, the number of boys who are likely to become compositors is about five. But to teach this trade, printing equipment occupying considerable space is necessary, together with a teacher who has had some experience as a printer. The expense per pupil for equipment, for the space it occupies and for instruction renders special training for such small classes impractible. All of the skilled occupations, with the exception perhaps of the machinist's trade, are in the same case. An attempt to form separate classes for each of the eight largest trades in the city would result in two classes of not over five pupils, and only one of over thirty-teen pupils." 1

The bulletin on the "Cardinal Principles of Secondary Education" in speaking of the exploratory function of the junior high school says; Vocational education should equip the individual to secure a livelihood for himself and those dependent on him, to serve society well through his vocation, to maintain the right relationships toward his fellow workers and society, and, as far as possible, to find in that vocation his own best development.

This ideal demands that the pupil explore his own capacities and aptitudes, and make a survey of the world's work, to the end that he may select his vocation wisely.

Lutz, R.R. Wage Earning and Education, pp. 48-49, Cleveland Foundation Survey.

These general courses as outlined will prove and have proven of the greatest value in exploring the interests and capabilities of the pupils. Students may then have some basis for selection of vocations and if he is ever going to show an aptitude or liking for anything, it will surely manifest itself during the period of his stay in junior high school. In the opinion the greatest need in the junior high school field to-day is a systematization of these general courses, as at present they are in the embryonic stage of development and schools are in many cases at loss as to what recommendations should be made for the outline of study. This condition is particularly true of the practical arts, the possibilities in too few vocations are laid open for this course to continue without a complete organization. The possible lists of vocations extends itself indefinitely and it is the duty of the intermediate school to place every child in his proper niche as far as is humanly possible. If such a lofty ideal was even partially realized the value of the junior high school to the community would be inestimable. "The world is so full of a number of things, I'm sure we should all be as happy as kings."

The separate treatment of the exploratory courses or functionof the junior high school would convey the impression that it was a separate and distinct function. However, this is not the case, as Koos states, "The firstof these is concerned with try-out of subjects and subject groups, and experiential contacts in school shops or elsewhere with occupational life. The second is concerned with other phases, such as assistance in curse or curriculum selection

Nichols, Louise: Are Changes in the Curriculum Needed?
School and Society, vol. 2 , no.616, Oct. 16, 1926.

in the choice of present and future lines of activity, such as occupational, recreational, social, etc. The function is one, the two groups are suggested by the term as means at hand by which it may be performed. The two phases are such as to react on each other to the better performance of the distributive function as a whole."1.

The need for guidance in the junior high school is paramount. With the growing complexity of our civilization it is essential that the school meet the needs which arise from such a growth. If an individual is to fit into the life of the community as a social, moral, and economic asset, the school must do its share in starting him on the right road. Misfits in the school mean misfits in later life in the majority of cases. Medical misfits comprise the greatest proportion of our prison population and the statistics of our penal institutions indicate that this element is increasing with alarming rapidity. Hence it is one of the duties of the school to assist society in coping with this problem. Guidance offers the only efficient means for combating the difficulty.

When we consider that fifty per cent of the school population leave school before the sixth grade, twenty five per cent never graduate from high school, and one-half of those entering the secondary school do not matriculate, it is evident that the secondary school is not meeting the need.

If guidance is to become an integral factor of school life, " there must be a systematized organization, for what is every body's business, is nobody's business."2

1. Koos, L.V. "The Junior High School, pp 5 -55

2. Davis, J.B. Lecture Vocational Guidance, Feb., 15, 1930.

The curriculum should be so arranged that definite arrangements are made for this function through the medium of the home room period.

This period forms a most fertile field for guidance in the broad sense of the word; educational, vocational, social, moral, and physical. Guidance to be efficiently administered connotes an intimate knowledge of the pupils by the teacher . This can be accomplished only by the decentralization of the school so that each teacher has a small unit group which can be rightfully called his own. Progressive junior high schools have worked out this problem in different ways, for example, the Oliver Wendell Holmes Junior High School of Philadelphia has home-room units known as chapters. From these chapters are sent representatives to the school governing bodies modelled after the city government. They operate as a separte unit, once a week in a period devoted to guidance proper, "each teacher conducts personal conferences with the pupils of her own home room. Such guidance periods are strictly confidential; no visitors are permitted to attend them; even the principal makes a point to remain out of the room during this period."1.

Some junior high schools make greater provision for this function and give one full period a day to guidance . The Ben Blewett Junior High School makes such a provision. "During these periods there were no subject-matter lessons, though classes were helped to prepare lessons with which they were having difficulty.

Lyman, R.L. "The Guidance Program of the Holmes Junior High School," School Review, vol. 32, Feb. 192 .

Chiefly, their activity during the period dealt with class problems and responsibilities". In this manner the teacher is able to combine the knowledge acqired through intelligence tests, grades in their respective studies, interests and aptitudes displayed in the try-out courses, with a more personal and intimate knowledge obtained in the home-room period. The social-civic-moral function or aim of secondary education can be carried out to greater advantage in the home-room period than in any other phases of school activity.

The extra-curricula activities, while somewhat outside the the scope of this paper, offer great opportunities for exploration and guidance. Many shouldering talents have been brought forth by debating societies, musical clubs, or scientific organizations and developed under the guidance of the club-advisor. However, such activities in order to be justified should be purposeful and a child should not be allowed to enter a club unless there is some definite interest shown. The spirit which seems to pervade some junior high schools, namely, "Every member of the school, a member of a club," is erroneous both in theory and in practice.

Cox states the ideal attitude of the teacher in the matter of exploration and guidance when he says, "Above all, the teacher must realize that every child has in some degree and in some form, a potential spark of genius, and that, if he can only lead each pupil to make the right contact, universal victory is possible. For this is the fundamental dogma of democracy; to it as school-masters in the service of democracy, all must subsribe." 1.

1. Cox. P.W.L., "The Junior High School and Its Curriculum P.31

The third primary function of the junior high school is the recognition of individual differences. This function is quite closely and naturally correlated with the two functions previously discussed. Expressions which illustrate the function of recognizing individual differences are; One of the chief motives behind the junior high school has been the great adaptability to the individual needs and individual differences; the junior high school will recognize "inherent and universal natural differentiation", it will make provision for "preparation for the diversified duties of democratic society by giving full recognition to individual capacities and training", it will meet thevarying mental capacities and economic needs of the pupils; it will offer opportunity for over age pupils.

Inglis in speaking of this aim, said, "This demands a) the earlier introduction of some differentiated studies for different groups of pupils; b) promotion of pupils by subject rather than by grade; c) increased flexibility in the administration of education in the intermediate grades; d) provision for the introduction of some forms of instruction which may give the pupils an opportunity to explore and test out their capacities, aptitudes and interests; e) provision for some forms of educational diagnosis and direction; f) recognition of the needs of those leaving school early; g) provision for economy of time in the case of brighter pupils. "

Inglis, Alexander, "Principles of Secondary Education," p. 294

This matter of individual differences has long been recognized, but it has only been within the last fifteen or twenty years that attempts have been made to devise ways and means of adapting secondary education to individual differences in these traits in such a way to insure maximum benefit to the individual differences and to society. The differences in which the curriculum builder should be interested are; differences in general intelligence, in physical traits, in social intelligence, for example, good leadership or followership; in vocational interests; and in moral qualities.

Intelligence tests are designed to measure general intelligence. In arranging the program of studies we should consider general intelligence as a group of related capacities. S.S.Colvin says, "There are three main types of innate intelligence, namely, intelligence for words and abstract ideas; motor intelligence, or skill with the use of the hands; and social intelligence, or the ability to get on well with one's fellows." An intelligence test which surveys a persons's general intelligence does not indicate in particular the various aspects of this intelligence. Hence, it is the duty of the curriculum builder to give the child an opportunity to explore and find out where his interests and talents lay. However, the feasability of allowing every student in the junior high school to take shortunit courses which will try him out in every field is doubtful. Philip Cox is of the opinion that these short-unit courses should not be included in the core-curriculum. Here again, general intelligence is determined psychol-

ogists say,by race, social condition, and physical traits. Taking this into consideration, a student might have some real ability in some particular field, lying dormant, which talent would be brought out, if it were given an opportunity.

Another individual difference which should be developed is social intelligence. Our present tests are deficient when it comes to measuring social intelligence or ability to manage people. While a real leader might score high in such a test, it does not necessarily follow that he possesses the qualities of leadership. Here, again, the junior high school should give opportunity to develop qualities of leadership and followership. The home room period offers the greatest opportunity for the early development of these characteristics. Such rooms have their student government and in this organization correct social-civil-moral traits are acquired. Extra-curricula activities are also a source of development along these lines.

Differences due to racial and family social inheritance also require special attention and courses should be arranged so that these differences can be met. For example, boys and girsl from homes where the parents are foreign born or have had poor educational advantages are quite likely to be handicapped in their use of English. In the secondary schools these pupils have to struggle against the handicaps of poor pronounciation, incorrect grammar, and poor vocabularly. It is the duty of the school to eliminate such defects if possible. Likewise, their sense of appreciation is hindered by the

lack of good reading, classical music, and lack of family interest in current civic and political questions. The secondary school particularly, the junior high school, should do its utmost to fill this gap.

Many unfounded prejudices exist which intelligent treatment may destroy. Here again the home room period may be utilized as a discussuion period for breaking down these prejudices. The social science course is essential for the proper treatment of this difference which is so manifest among the citizens of this country.

Differences in moral qualities are also apparent and until very recently little or no attempt has been made to take cognizance of this fact. The moral qualities of enthusiasm, cheerfulness, reliability, and honesty paly a greater part in the future success of the individual than does and ability to solve a problem in mathematics or a translation in Latin. It is the duty of every teacher to impress his students with the importance and necessity of acquiring these characteristics. The importance of having the student elect a course in which he is interested is evident. The undesirable characteristics of laziness and discontent are not necessarily inherent qualities, but often do appear when a worker is ill suited to his job. Thus it is the function of the junior high school to recognize these individual differences and arrange the curriculum to meet the needs arising from them.

The last of the four functions, democratization is the resultant of the three functions previously outlined. Our school system is supposed to represent a democratic ladder scheme of education, a plan making it possible for every child to begin at the

bottom and to continue with profit as far as his ambition and economic condition permits. This can be best accomplished by an accumulative, unified, and progressive system of education. As far as possible, the curriculum should be arranged to meet every individual needto prepare the child for the business of living. Every opportunity should be taken to insure the inculcation of the habit of "right thinking followed by right acting."In order to acheive this end of democratization, it will be necessary to provide an enriched program of studies, adequate curriculum differentiation, flexible methods of promotion, and ample opportunities for socialization, so that each child may enter as far as possible upon the type of work which he needs most.

It is even more important that right attitudes of life are developed and that the cynicism which seems to be running rampant in American business and public life in connection with honesty and integrity, be destroyed. And as a result of the new era in American education, we may optimistically look for results as stated by Cox; "Trickery, dishonesty, ignorance, intolerance, and selfish exploitation will disappear as the new school life emerges. And then will the blessings of liberty and the common welfare be supreme."

Cox, P.W.L. "The Junior High School and Its Curriculum." P431.

There is nothing more characteristic of the American schools than the fact that they are organized and conducted as independent local ~~sin~~ units. Each school system arranges its courses of study without supervision from any authority from without the system. State departments often advise and strongly recommend the ground to be covered in courses from time to time, but even when these guides are accepted, it is left entirely to the discretion of the individual system. Recommendations are also made in regards to the curricula but here again the adoption of them is left to the judgment of the superintendent or the principal of the school.

The result of this local independence is that a great many experiments are being tried out in the American schools. Some of these experiments are carriedon with full appreciation and realization on the part of the school executives that the junior high school is still in its embryonic stage. In some cases it is an indication of professional alertness and a sign of a progressive spirit. However, it does seem as though most schoolmen might accept the judgment of men who have devoted many years of intensive study by means of expe imentation and scientific research and it would be the part of an efficient adminisrtator to accept their interpetation of what the aims and objectives are and how they can be most efficiently realized.

The wide divergences in the practices of the junior high school could be made a most helpful basis for educational progress if some method could be devised of finding in the midst

these practices the ones which are the most successful. Then by adopting the best from such experiments, the schools might take advantage of this opportu nity by adding to their present local independence some means of a comparison of results which would serve as a rational guide to local ~~inde~~ iniative. However, this has been done. Most authorities differed but little in the recommendations forthcoming fro m such experiments and it would be logical to expect some sort of a uniform adoption from these results. School authorities show no reluctance in accepting the aims and objectives of the junior high school, but they do very little to bring about a realization of these aims through the medium of the curricula. A study of the various junior high school curricula of Massachusettes cause one to marvel at the means utilized to bring about the same results.

The report which follows is a comparative study of the curricula of the junior high schools of Massachusettes and the relationship of them to the primary functions of the junior high school; namely, to provide a gradual transition from the elementary to the secondary school; to give opportunity for exploration and guidance; to make provisions for individual differences; and to democratize the school system.

The plan of procedure was to secure the curricula of all the junior high schools of the state and also the curricula of twenty five of the outstanding curricula. The four aims and objectives as previously outlined were used as a measure in the consideration of the question.

One fact was immediately evident: the periods of time devoted in various school systems to a given subject of instruction and to the subdivisions of that subject were impressively different. The question arises, how can school systems differ so radiaclly if all are producing the same results? The flowing table is an indication of the wide variation which exists. English is given as an example because it is a constant in every curriculum.

Grade	Highest no. of minutes	Lowest	Average
7	520	160	230
8	500	160	216
9	400	160	210

When the practices of the schools differ so widely as is indicated in the previous table, very little argument is needed to establish certain conclusions. First, experimentation in the administration of the curriculum has evidently folloed widely divergent lines; secondly, those who are devoting a longer period of time to a particular study should justify their practice in regard to the economy of time; those who use a shorter period should answer the question as to whether or not they are giving adequate training. Wide variations in time characterize the whole curriculum.

Gradual transition.

Do the junior high schools of Massachusettes provide a gradual transition from the elementary to the secondary school? One of the most forceful arguments offered by the advocates of the junior high school was that it provided a bridge for the gap which existed under the old plan of organization. It is the function of the junior high school to introduce secondary school subjects gradually so that a natural, unified, and progressive system will be the result. If sec-

ondary school subjects are introduced too early or without sufficient introduction, the purpose of the junior high school is being defeated. The following general courses give an indication as to what the junior high schools of Massachusettes are doing to meet this problem:

Subject	Percentage of schools giving course by grade		
	7	8	9
General Science	38	55	60
General Mathematics	83	84	13
General language	05	08	0

Thus we obs rve that progress has been rather slow in so far as general science and general language is concerned. The general science course could be placed in the seventh and eighth grades as well as the ninth. The fact that sixty per cent of the intermediate schools teach general sciencein the ninth grade lends argument to the claim that many schools have simply moved the first year of senior high school down to the junior high school and it can be supposed that the method in teaching the subject has not changed appreciably. Early adolescence is the time for the study of the laws of nature and with this in mind curriculum committees should start the study of science in the first year and continue it throughout the junior high school period.

General langauge is the least developed of the general courses as far as its adoption in the junior high school is concerned. Slightly over five per cent start language study too early, therefore, the course acts as a detriment. The eighth year is the proper time for this general course. Only eight per cent utilize this means to introduce the study of foreign langauge. Not on junior

gives evidence of freedom from the college requirements, for none of them continue the study of general language in the ninth year. There is no justification for starting the study of foreign language before entrance to senior high school. The teaching of a foreign langauge for the purpose of mastering it cannot be justified in the secondary school, but rather it should be a means for broadening and giving the students an insight into the lives, manners, and customs of foreign peoples. A well organized course in general language can do this more advantageously than an intensive study of one particular language.

Most of the junior high schools provide courses in general mathematics until the ninth year when algebra is substitited. Here, again, the junior high schools feel the binding ties of the college entrance requirements. However, the introduction of matheamtics is gradual which formerly was the case.

From this table the greatest work is to be done in the general language field, for over ninety-four per ceny of the junior high schools start the actual study of French, Latin, or Spanish without any previous introduction to the general field.

The twenty five representative junior high schools reveal this intersting fact. Twelve provide French in the course of study for the seventh grade. Fourteen rquire the students to elect the subject in the eighth grade. Latin is offered in the seventh grade by two of the schools and by eight in the second year. In only two cases is a course in general langauge offered which would make the transition easier. Thus the boy or girl who was not considered mature enough in the first year of the junior

high school to elect a foreign langauge , is now allowed to do so inthe first year of junior high school. Some school administrators might maintain that such courses are try-out courses, but this fact remains; those who succeed continue theur study and those who fail take up another line of activity. The psychology of the try-out course of this type is wrong in principle as the element of failure should be avoided, and could be avoided in the general langauge course. The function of gradual transition cannot be carried out under such an arrangement.

Pratical arts courses.

Subject	7	8	9
Woodworking	64%	64	43
Metal working	9%	12	8
Agriculture	05	1	1.7
Printing	2.7	5.[illegible]	2.7
Electricity	2.5	3.4	5.1
Machine shop	2.5	3.4	5.1

Mechanical Arts	.017	.017	.034

The same misunderstanding of the capabilities of the junior high school student is onee more apparent and the inclusion of these trade courses which train for mere some specific trades not only unjustifiable but thwarting the p urpose of the junior high school in its effort to provide gradual transition. The aims and purposes of the practical arts course is to provide for worthy home membership, exploratory, avocational, appreciation of work done, practical application and correlation, and habits of exactness and accuracy . American boys have alwasy started trades too young, and many of our junior high schools are doing their utmost to start them younger. Here, too, boys re confronted with the problem of picking a trade at an age when they haveno real conception as to what a trade will hold in store for them. In tensive training in the intermediate school is nd in keeping withthe purposes of the school.

Considering the problem from the viewpoint of the function of gradual transition it is obvious that th include specialized activities in the first two years of junior high school is not in keeping with this function.

In view of the fact that the seventh year is essentially a period of adjustment for the very young and immature adolescent. He must be adjusted to a new school organization and a new type of administration. Therefore, he should be subjected to as little change as possible from the elementary school. The twenty junior high schools retain the elementary schools studies in the seventh grade with the exception of three. These schools offered electives in the

seventh grade. Pupils are required to elect one of the following, foreign languages, (French or Latin), practical arts or home economics, or junior business training. lass says that there should be not change in the program of studies occasioned by the introduction of electives. Present practice gives little support ot any seventh year elective. Somerville, Belmont and Fall River are the junior high schools which include electives in the seventh year. radual transition and good articulation between the elementary school and the junior high school i most difficult under such conditions.

The eighth year also is of assistance in gradual transition by the intruduction of general try-out courses. This phase has been discussed in previous pages and will be further discussed under the heading of exploration and guidance.

Finally in the accomplishment of the purpose of the junior high school to serve as a transitional stage in the public school system, there must be aperiod of "stimulation" as Glass says, to facilitate transition to the senior high school. The ninth year of the junior high school is primarily for the purpose of making desirable in theestimation of each pupil advancement into the the next higher type of school. The ninth year carries on the program selected after the experiment of the two previous grades. This stimulation is largely by the agency of the particular electives chosen during the priods of esploration and provisional choice. The junior high scholls of Massachusettes are ne in providing electives for stimulation. The purpose of stimulation, but rather definite, specialized training is started at that period.

Exploration and guidance.

The most importance year in the junior high school is considered by some authorities to be the eighth year. For it is during this period that the adolexcent boys and girls are afforeded the opportunity to try-out their individual difference, a bilities and aptitudes.

Every boy and girl should have an opportunity to try out in ever general course, even it it is a short unit course of ten weeks duration. Every exploratory course must fulfill the twofold purpose; first, to help some pupils to explore their aptitude for the course, and second, to give all pupils an actual educational return. The Commission on the Reorganization of Secondary Education states::"Eash subject should be so orgainzed that the first year of work will be of definite value to those who go no further; and this principle should be applied to the work of each year."

The percentage of junior high schools giving such try-out ciyrses is rather smiliar as this table indicates.

Subject	Percentage of schools giving courses.		
	7	8	9
General Science	38%	55%	60%
General Mathematics	83%	84%	13%
General Language	5.8%	8.2%	0

Gemeral science and gereral mathematics courses are given generally, general language isstill in its embryonic stage. Lach of suitable texts and teachers is probably the cause of may junior high schools to adopt the general language course.

The curriculum of the ninth year gives evidence to the fact that in all together too many cases the first year of the senior high school has been superimposed on the ninth year of the junior high school.

The following figures tabulated from one hundred and seventy junior high schools indicate that specialization and not stimulation is the aim in the largest percentage of junior high school. As a result the transition is made no easier than was formerly thecase under the old eight-four plan and the value of exploratory and try-out courses in the eighth grade has been nullified.

Subject	No. of Schools	Percentage
Elementary Algebra	115	66
Latin 1	61	35
Latin 2	40	23
Latin 3	17	10
French 1	47	26
French 2	33	13
French 3	46	27
Sewing	87	51
El. Bus Practice	48	28
Bookeeping	37	22
Typewriting	12	7
Mech.Drawing	63	32
Metal Working	15	8

The above list of courses are offered in the ninth year of the junior high schools of Massachusettes, The first, elementary algebra is probably the result of college entrance board requirements. However, if public school officials can break down this domination by higher institutions of learning, general mathematics should be continued in the ninth year, as such a course properly organized, holds greater educational value than algebra. Then, too, the student can master sufficient mathematics in senior high school to satisfy these college requirements.

A study of Latin 1 is probably essential in most communities and can be attributed to the demands of the colleges. Latin 2 and 3 ,which is apparently advanced study, is certainly uncalled for in the junior high school. The same condition is found in French with sixty per cent of the schools offering advanced study. Such an arrangement might prove beneficial to a few students with linguistic talent above the ordinary, but for the ordinary students such coure act as a detriment rather than an aid.

Bookeeping is taught in thirty sven of the one hundred and seventy junior high schools, while typewriting is found in the curricula of twelve schools. There is no justification for either subject on the basis of expense or as an aid to the fulfillment of the functions of the junior high school. The commercial curriculum is one in which there is great need for reorganization.

The teaching of typing in the junior high school is of doubtful value. Proctor found in a study of this question that only two per cent of junior high school graduates use typewriting. Thus, the expense entailed for the initial purchase and the upkeep of the machines is not justifiable. Likewise the study of bookeeping

is not productive of results sufficient for its inclusion in the curriculum. Twenty one per cent of the junior high schools contain this subject in the curriculum. Investigation again showed that junior high school students have only a negligble opportunity for using what little training they receive in the subject. Neither typing not bookeeping is of any value to the student as they do not make the transition easier, nor provide a pre-view to further study.

Junior business training or elementary business practice is the best means for making the gradual transition in the commercial cuuriculum. Twenty eight per cent of the schools provide such training. A well organized course will enable the student to master the fundamentals in spelling and arithmetic, and stimulate interest if the pupil shows a liking for the work.

All of these try-out or exploratory courses should be contained in core-curriculum according to most authorities. However, such is not the case with the junior high schools of Massachusettes, for only a fraction of a per cent do so. The general mathematics course is contained in the core-curriculum of all the junior high schools investigated. Algebra is found as an elective in four of the twenty five schools. The remaining twenty one have algebra, business arithmetic, and in two cases vocational algebra as electives in the ninth year. General science is found in the eighth and ninth year.

The greatest failure of the junior high schools to meet the exploratory function is in the general language field. In every case the study of general language is limited to those of "exceptional ability", or those whom in the opinion of the teachers

can profit by such study, or choice of language activity under guidance. Intelligence examinations and records in the elementary grades are determing factors in the election of courses. Apparently, most of the school systems have reverted to the old plan of the superior students taking the proverbial "college course", or those of mediocre talents take the commercial curriculum, and the remaining group follow the industrial arts or the home economics curriculum. Hence, the condemnatory statement made by the opponents of the junior high school idea, namely, that students must select their vocations at the age of twelves, whereas under the old plan they were not expected to do so until fourteen or fifteen years of age, is not without truth and foundation in fact.

The following tables indicate that the larger junior high schools as well as the junior high schools in general, are not completely fulfilling the functions of the junior high school.

Languages offered in twenty five slected schools	Subject	7	8	9
	Latin	23%	34	100
	French	33%	92	100
	Spanish	4%		8
	German	4%	-	-
	Gen. Lang.	6%	8	-
Languages offered in one hundred and seventy junior high schools.	Subject	7	8	9
	Latin	11%	48	69
	French	39%	60	74
	Spanish	3%	2.8	4
	German	.05	-	-
	Gen. lang.	5	8	

	Subject	7	8	9
Mathematics offered in twenty five schools.	El. Algebra	3%	14	67
	Bus. Arith.			2
	Gen. Math.	83%	84	13
Mathematics offered in one hundred and seventy junior high schools.	El. Algebra		12%	64
	Bus. Arith.			16
	Gen. Math.	33%	48	8

	Subject			
Commercial subjects for twenty five selected schools.	El. Bus. pr.		36%	32
	Bookeeping		20%	28
	Typewriting	4%	20	32
Commercial subjects for one hundred and seventy junior high schools.	El. Bus. Pr.	4%	25	23
	Bookeeping		2%	22
	Typewriting	2%	8	8

These tables indicate that the larger more progressive schools are approximately in the same condition as the junior high schools in general. In both cases greatest work needs to be done in reorganizing the foreign language study, encouraging progress has been made in the commercial field and in the study of mathematics.

Such exploratory courses as general language, general mathematics, and general science will prove only partially effective without guidance. A study of the curricula shows that practically ni time is devoted to guidance activities. One school offers a course in vocations and civics. This offering is given five times a week and is started in the eighth grade and is continued in the ninth. It is in the core-curriculum.

A second system offers guidance combined with library work and study, four periods a week are devoted to these activities. Twenty of the twenty five junior high schools provide guidance as an aid in the election of electives, but in half of these cases the choice is not preceded by an exploratory course.

All of the junior high schools have a very well developed plan of extra-curricula activities. In this wasy the progressive teacher may take advantage of the many opportunities to assist the pupil in making a vocational choice. These clubs supply an intimate contact with the pupils for the teacher. Given sincerity, affection, reasonable intelligence, respect for the personalities of the pupils, and freedom and security, almost every teacher will become an effective adviser to the pupils whom he comes to know through their common activities. Home rooms, clubs, teams, committees, and class rooms offer the greatest opportunity for such partner-ships which will bring about these intimate contacts. Hence, while the mechanics of the curriculum offers very little in in the way of affording opportunity for guidance, teachers will take advantage of the enthusiasms aroused in the various activities, exploiting them for the welfare ofthe groups, but particularly, the individual.

The school curriculum is thus coming to re-enforce, guide, and direct desirable activities that are intrinsically satisfying to pupils; it is becoming the dynamic instrument for co-ordinating the educational activities of the school an those of the out-of-door and school life of the boy and girl. The school paper is frequently edited by pupils in their English classes; debate is fostered in connection with social study and English courses of study; athletic games are organized as a part of physical education;

teachers of mathematics, science, and other subjects act as sponsors of clubs for pupils interested in some phase of their subject. These extra-curricula activities are in themselves of sufficient value to warrant the existence of the junior high school. At present they offer the greatest means for guidance as the curriculum of the junior high school has taken very little recognition of this particular function.

The third function, that of recognizing individual differences, is generally recognized in the junior high schools of Massachusetts. The enriched curricula and extra curricula activities provide opportunity for the varied interests of junior high school pupils. If any criticsm may be directed in this respect, it is over recognition of individual differences particularly in the practical arts and domestic science cources.

Koos says the following are the factors of variation in adolescent children,-1) inherited; 2) environmental factors and those attributable to 3) stage of maturity, 4) sex; 5) the degree of selection.

The curriculum of thejunior high schools can do but little to recognize t he inherited differences except through the medium of the general try out courses and the extra curricula activities. Some schools, however, recognize musical ability, for example, giving credit for work done outside of school. Artistic ability in sketching or drawing may developed in the school magazine. Both of these talents are largely inherited.

Environmental influences are also ordinarily believed to be potent in making for variation between individuals of identical native endowment. Among these environmental influences are the kind of previous education in school; home conditions, inclusive of intellectual traditions, occupations, and recreational and other interests of members of the family; and neighboring surroundings. These are in turn determined in no small way by what are sometimes referred to as "race differences," especially in cities whose populations are constituted in considerable proportions of recent immigration of people whose traditions and attitudes are notably unlike those of peoples who came to our shores a generation or more ago.

The big problem for education is to determine in what direction the individual differences in ability and interests are to be fostered, and in what direction we should endeavor to diminish them.

There will be no disagreement with the statement that, as concerns the physical aim, our endeavors will be to bring the school population to a uniformly high level of physical efficiency. Sixteen of the twenty five high schools provide physical training two periods a week throughout the three years. Five devote but one period a week to physical education. Three junior high schools work on a sliding scale with three periods a week given in the seventh year, two in the eigth year, and two in the ninth year. One school combines physical training and hygiene in two periods carried through the three years.

The distribution of athletic activities among the junior high schools of the state is most interesting; Here again one hundered and seventy schools were considered.

This table gives the percentage of schools engaging in athletic activities.

	No. of schools	percentage
Physical director	121	71
Playgrounds	132	77
Gymnasiums	89	52
Foot ball	67	39
Soccer	90	52
Baseball	161	94
Basketball (girls)	102	60
Basketball (boys)	123	72

This indicates that recognition is being taken rather generally of the necessity of physical education. Therein however, no justification for football in the junior high schools. Gradual transition implies physical as well as mental. In view of the fact that the bones and muscles of adolescent boys are in the formative and developmental stage, care should be exercised so that these organs shall not be over taxed and result in a strain that m might bring a permanent injury.

In the vocational aim we shall need to strive more for differentation. The curricula is rich in its offerings along certain lines, but to be effective, these cources should be opened to all students, not a select few.

In th aim to train for the proper use of leisure time we shall find it desirable to s cure both differentiation and similiarity. For instance, while all children should be taught to make recreational use of reading,it will be necessary to guide reading interests in some part along diverging channels. Here, the junior high schools with their numerous club activities can develop these interests.

Some of the more prominent activities found in the junior high schools of the state are as follows;

	No. of schools	Percentage
Orchestra	140	82
Band	24	14
Glee Club (girls)	76	44
Glee Club (boys)	76	44
~~Department~~		
Debating Clubs	63	37
Dramatic Club	102	60
School Paper	88	51
Junior Red Cross	80	47

These extra curricula activities provide an opportunity for exploration and guidance as well as developing a means for the proper use of leisure time. In the more advanced schools, advanced work in art and music is contained in the curriculum, and as much time devoted to those activities as to the languages or mathematics.

Another individual difference which most junior high schools recognize is innate ability or capacity. The students are grouped in accelerated, medium, and slow groups. ork is assigned according to the groups ability to accomplish the tasks assigned. Junior high schools should avoid "double promotions" for the accelerated group and instead provide a rich program of studies.

Different junior high schools use either intelligence tests or scholarship as the deciding factors for group placement. The percentage of schools using them are as follows;

	No. of schools	Percent
Scholarship	123	72
Int. Tests	81	47

Citizenship;

There is one individual difference which every school should attempt to remove and bring every student on the same plane; good citizenship. This aim should characterize the whole curriculum, but the social studies are the best immediate means for realizing this aim. The

The social studies are one of the most difficult studies. It was not until 1847 that Harvard and the University of Michigan recognized history as a subject worthy of preparation for college. Books were hastily written and adopted without question by the high schools. Ancient and English history were included in the secondary schooldcurriculum. Pupils in general

had no particular interest in these courses, nor did these courses hold anything of any great value for the students. The reorganization of the social sciences in the junior high school has taken the form of generalization. Civics, history, economics, sociology,and geography are usually included in the general course.

This general social science course will give the student a broad view of future senior high school work. Sixty four out of one hundred will not graduate from the high school. It is necessary therefore that the junior high school start to give a training in citizenship and a general appreciation of the peoples of the world. There is no course in the entire school system which will do more than the social studies in breaking down prejudice and intolerance. In addition it will do much to eliminate the intense spirit of nationalism which is so evident in America at the present time. The social studies should be the core of the curriculum and required of every student.

This table indicates the progress made by the junior high schools of Massachusetts in the social studies;

Grades	7	8	9
subject			
Com. Civics	19%	35	52
U.S.History	78	78	4
Geography	80	64	4
Social Studies	7	9	2

The table in itself is sufficient proof that very little progress has been made in developing a general social studies course. The junior high schools are adhering very closely to the traditional United States History and geography as it was presented under the old plan previous to reorganization.

Hence, it would seem that the junior high schools of Massachusetts

have been only partially successful in recognizing individual differences. Encouraging progress has been made in the health program. Attempts have been made to provide for individual differences in intelligence, extra-curricula are provided for special talents, and the curriculum in general has been enriched to a certain degree. It might be said that with the limited facilities provided and laboring under handicaps peculiar to New England, encouraging advancement has been made.

The democratizing function of the junior high school.

In concluding the discussion of the present primary functions of the junior high schools, it will be well to direct attention briefly to the keynote which interrelates the three functions which have come up for consideration. This keynote the democratization of education.

This is the major function of all education, gradual transition, exploration and guidance, and recognition of individual differences are sub-functions of the major function. Education cannot be democratized without keeping in school, pupils who are now dropping out just as soon as the period of compulsory education is terminated, while other pupils continue their training. (Junior high school principals, when queried on this said that there was a greater retention of pupils as far as they could observe.) Time is economized by enrichment and otherwise so as to advance further into training beyond the mere fundamental process, those who are destined to leave school early. In this way progress is made toward the equalization of educational opportunity. There is some adjustment to individual differences. The performance of the function of exploration and guidance has been carried out so that these individual differences are recognized; one is a corollary to the other. While not every in support of these functions comes from the need of democratization, this relationship is one which knits them into unity and makes

them all democratizing functions of the junior high schools.

Constructive Curriculum for the Junior High Schools.

What type of curriculum gives the greatest opportunity for the realization of the Seven Cardinal Principles and provides the best means for carrying out the primary functions of the junior high schools.

The following program of studies contained in the Senior-Junior High school Clearing House Magazine of November,1929 meets every requirement of the junior high school. Local conditions would probably prevent most systems from adopting such a program but it is the ideal toward which every school should tend.

Seventh year- first year		Periods weekly
English		5
Social Studies		5
General Mathematics		5
General science		2
Health		2
Home room activities		4-5
Orientation	1	
Assembly	1	
Conference and Home room business	1-2	
Reading, writing and Spelling	1-2	
Library study	1	
Music	1	1-2
Art		2
Practical Arts		2

Health includes formal and informal gymnasium work and health instr ction.

The home room activities are under the direction of the home room teacher.

Seventh year- second year.			Periods Weekly
English			5
Social studies			5
General Mathamatics			5
General Science			2
Health			2-3
Home room activities			4
Club or study		1	
Assembly		1	
Conference		1	
Writing and Spelling		1	
Guidance			1
Reading			1
Music	2		
Art	1	Choose two	3-4
Practical Arts	2		

Libary guidance is conducted under the instruction of a librarian.

The club activities are compulsory for one term only, thus if a student shows no interest he may drop it.

Reading is carried on with character training as an objective.

Eighth year-first half			Periods weekly
English			5
Social studies			5
General science			2
health			2-3
Home room activities			4
Club or study		1	
Assembly		1	
Conference and Home room business		1	
Writing and spelling		1	
Guidance			1
Music	2	Choose two	
Art	2		4
Prac. Arts	2		

The choice of the electives is made under guidance.

Elements of business	10	weeks	
General language	10	weeks	2-3

Elements of business and general language are not electives and are given only in the second half of the eighth year.

Ninth year-first half

English		5
Social studies		5
Mathematics		5
Health		2
Home room activities		3
Club or study	1	
Assembly	1	
Conference and Home room business	1	

Electivess

Science	5
Guidance	1
Music	5
Art	5
Business training	5
Foreign Language	5
Study	0-5

Ninth year- second half

English	5
Social Studies	5
Math.	5
Health	2-3
Home room activities	2-3

Electives

Science	5
Guidance	5
Music	5
Art	5
Practicalarts	5
Bus. Training	5-10
Foreign Language	5
Study	0-5

This curriculum provides gradual transition in the seventh and ~~eigth~~ ninth grades by providing a gradual ~~transitiong~~ introduction of the social studies, mathematics and science. Another excellent means of introducing the new students to theschool is the one period a week devoted to "orientation". The study of the fundamentals is continued by continuing the study of the fundamentals of reading, writing and spelling. Appreciation of music and art is encouraged by studying them four periods a week.

The eigth year is featured by the inclusion of general try-out cources as a required subject. They are short unit cources of ten weeks duration. The cources are general language and the elements of business. These courses are given only during the second semester.

The ninth year provides for the election of one of the following; foreign language, business training, art and music.
These elections are made under guidance.

Thefeatures of the curriculum are; the home room activities, English, Social studies, mathematics and health which are contained in the core-curriculum for the three years. Electives are provided in music and art and the same credit given in these studies as in the foreign language and business training. Short unit try-out courses followed by guidance which meet the exploration and guidance function of the junior high schools.

This curriculum meets the requirments of the Cardinal principles and the primary functions of the junior high school, in addition it gives opportunity for the administrators to meet local needs, such as additional study of English for schools in a foreign section, or the demands of the college board.

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